Effects of ***Scrophularia Striata*** extracts on Wound Healing In Mice

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Abstract

Background and Aim: Study of different methods, to improve skin wounds healing caused by diabetes and burns has been always a matter of medical researches.Treatment with chemical drugs has its own problems so utilizing low-cost herbal treating methods has gained more attention day by day. The present research studied and compared the healing effects and functions of different *Scrophularia striata* extracts on mice wounds. Methods: At the first step the wound healing effect of three different kind of extracts (aqueous , alcoholic and hydroalcholic) was investigated. Male mice weighting 25-35 gram were divided into five groups as follow: The First group considered as control (without treatment), the second group recieved phenytoin and the other three groups received 10 percent of aqueous, alcoholic and hydraulic extracts respectively. In order to control the wound healing process, wound's photos were documented in determined times and analyzed by image j software. In the second step , based on the first step findings, the wound healing effects of a hydroalcholic extract ointment was investigated. In this step mice were divided into five groups including control, Ocerin treatment, phenytoin1%, 5 percent and 10 percent herbal ointment. Results: Average times of wound healing were 9.1±3.1, 6.6±1.9, 6.5±1.7, 6.7±1.8, 6.1±0.9days orderly for the control group, Phenytoin, alcoholic, hydroalcholic and aqueous extracts at the first step of the study. Hydroalcholic extract had the best effect with the lowest healing time. At the second step healing times were 6±0.6, 6.43±1.2, 6.71±2.01, 8.86±1.9, 9.14±2.09 days for 10 percent herbal ointment treatment , 5 percent herbal ointment treatment , Phenytoin treatment, ocerin treatment and control groups respectively. Conclusion: The study showed that 10% ointment had the most suitable effect compare with the other groups.This study showed that *Scrophularia Striata* can be one of the choices for manufacturing a medication for wound healing.

Keywords: Extract, mice, *scrophularia striata*, wound healing.

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